







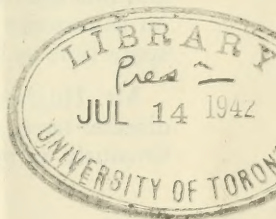
# Sixty-Seventh Annual Report of the Visitors of the University Observatory for 1941.

Physical &  
Applied Sci.  
Serials

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G. M. B. DOBSON, M.A., D.Sc., F.R.S., Fellow of Merton.

} Until Oct., 1945.



This report refers to the calendar year 1941.

## I. Staff and Work.

The war-time diversion of the activities of the staff, already noted in the two previous reports, has become even more marked in the year under review. Only Miss Bellamy has been able to continue, with the assistance of Mr. Cook, full-time work at the Observatory, and this has been wholly devoted to seismology. The third quarter of the International Seismological Summary for the year 1934 has been prepared, printed, and distributed, while the final quarter for this same year has been prepared and is being seen through the press.

Dr. Adam has been able to continue her duties as Acting Director, but her war-work has occupied nearly her full time. During the first nine months of the year she continued demonstrating at the Electrical Laboratory for the Royal Corps of

Signallers and Royal Air Force Cadets, and since then has been engaged upon research for the Admiralty. As a consequence the work on the experimental determination of transition probabilities has proceeded very slowly. However a 10 cm. cadmium tube for the absorption measurements has been procured, and a small cylindrical electrical furnace for heating it constructed. As a continuous source of ultra-violet radiation a hydrogen tube has been prepared, and this is being used with a chlorine vapour filter to eliminate the unwanted visible radiation.

Dr. Evans's work in collaboration with Dr. Mendelssohn of the Clarendon Laboratory on the applications of physics to medicine has proved highly successful. In addition to the development at the Nuffield Department of Anaesthetics of the Oxford Vaporizer, now in production, a highly sensitive blood pressure recorder has been designed and tested. This work has left Dr. Evans no time for astrophysical research. He has, however, been appointed an Editor of the *Observatory Magazine*, and this work and the contribution of a number of short articles on astronomy to various periodicals has fully occupied such spare time as he has had.

Mr. Hughes, who has now received a commission, and the director have, as in previous years, been away from Oxford continuously on their war-time duties.

## II. Publications.

The following papers have been published during the year:

E. F. Bellamy. *The International Seismological Summary*, Part 3, 1934. (County Press.)

D. S. Evans. 'Inverse Problem of Stellar Absorption Line Formation', *Monthly Notices*, R.A.S., vol. 101, p. 21.

H. H. Plaskett. 'The Observational Determination of the Line Absorption Coefficient and its Variation with Depth in the Solar Atmosphere', *Monthly Notices*, R.A.S., vol. 101, p. 3.

The last two papers in their reprint form appeared as Communications from the University Observatory, Nos. 20 and 19 respectively. In the same series appeared during the year Nos. 21 and 22, papers by Dr. Busbridge and Dr. Camm, which had their origin in work done at the Observatory.

## III. Miscellaneous.

Though no formal instruction has been given throughout the year, the Observatory has been open on Saturday nights during the Michaelmas and Hilary Terms to members of the University and their friends.

The Royal Astronomical Society has maintained its office in the Observatory throughout the year. In addition office space was provided for Professor D. Brunt of the Imperial College, and on his departure at the end of February Professor H. C. Plummer, a one-time member of the staff, made use of the room and the facilities of the Observatory for his astronomical work.

H. H. PLASKETT.

UNIVERSITY OBSERVATORY,  
OXFORD.

26 *March* 1942.







